

Practitioner's Docket No. 48457

414 Rec'd PCT/PTO 29 SEP 2000

09 / 446799 PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Wyatt, et al.

Application No.: 09/446,799

Filed:

Group No.:

Examiner:

For: GLYCOSYLATED MODIFIED PRIMATE LENTIVIRUS ENVELOPE POLYPEPTIDES

Box PCT

Assistant Commissioner for Patents

Washington, D.C. 20231

RECEIVED

11 OCT 2000

Legal Staff  
International Division

EXPRESS MAIL CERTIFICATE

"Express Mail" label number: EL565096562US

Date of Deposit: September 29, 2000

I hereby state that the following *attached* papers and fee

1. Copy of Notification of Missing Requirements Under 35 U.S.C. 371 in the United States Designated/Elected Office (DO/EO/US);
2. Check in the amount of \$130.00;
3. Completion of Filing Requirements for International Application Entering National Stage in U.S. Designated Office (DO/US) Under 35 U.S.C. 371;
4. Check in the amount of \$1850.00;
5. Combined Declaration and Power of Attorney;
6. Added Page to Combined Declaration and Power of Attorney for Signature by Joint Inventors on Behalf of Non-Signing Inventors who Refuse to Sign or Cannot be Reached (37 CFR 1.47(a));
7. A Statement of Facts in Support of Filing on Behalf of Non-Signing Inventors (37 CFR 1.47(a)) (N. Valtz), including:
  - Exhibit A (letter dated January 10, 2000)
  - Exhibit B (letter dated April 21, 2000)
  - Exhibit C (letter dated May 22, 2000)
  - Exhibit D (letter dated August 28, 2000)
  - Exhibit E (Receipt for Certified Mail)
8. A Statement of Facts in Support of Filing on Behalf of Non-Signing Inventors (37 CFR 1.47(a)) (N. Grodin), including:
  - Exhibit F (email dated August 11, 2000);
9. A Statement of Facts in Support of Filing on Behalf of Non-Signing Inventors (37 CFR 1.47(a)) (J. Sodroski);
10. Assignment Recordation Cover Sheet (PTO 1595);
11. Executed Assignment; and
12. Check in the amount of \$40.00.

are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10, on the date indicated above and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

Nicole L. M. Valtz



Signature of person mailing paper or fee

10/03/2000 AGIZAW 00000071 09446799

01 FC:128	1850.00 OP
<del>02 FC:134</del>	<del>130.00 OP</del>

Adjustment date: 12/07/2001 UEDUVIJE  
10/03/2000 AGIZAW 00000071 09446799  
~~02 FC:134~~ ~~130.00 OP~~

12/07/2001 UEDUVIJE 00000138 09446799

01 FC:122	130.00 OP
-----------	-----------

09/446,799



Patent and Trademark Office  
Address: ASSISTANT COMMISSIONER FOR PATENTS  
Box PC  
Washington, D.C. 20231

157/48457

U.S. APPLICATION NO.	FIRST NAMED APPLICANT	ATTY. DOCKET NO.
	5811	PCT/US98/2398

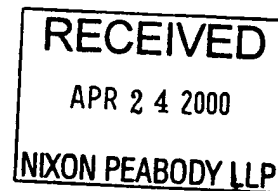
RONALD I EISENSTEIN  
NIXON & PEABODY  
101 FEDERAL STREET  
BOSTON MA 02110

INTERNATIONAL APPLICATION NO.	
11/10/98	11/10/97
I.A. FILING DATE	PRIORITY DATE
	04/18/00
DATE MAILED:	

**NOTIFICATION OF MISSING REQUIREMENTS UNDER 35 U.S.C. 371 IN THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US)**

1. The following items have been submitted by the applicant or the IB to the United States Patent and Trademark Office as

- ☒ a Designated Office (37 CFR 1.494),
- ☐ an Elected Office (37 CFR 1.495):
- ☒ U.S. Basic National Fee.
- ☒ Copy of the international application in:
  - ☐ a non-English language.
  - ☒ English.
- ☐ Translation of the international application into English.
- ☐ Oath or Declaration of inventors(s) for DO/EO/US.
- ☐ Copy of Article 19 amendments.
- ☐ Translation of Article 19 amendments into English.
- ☐ The International Preliminary Examination Report in English and its Annexes, if any.
- ☐ Translation of Annexes to the International Preliminary Examination Report into English.
- ☐ Preliminary amendment(s) filed \_\_\_\_\_ and \_\_\_\_\_.
- ☐ Information Disclosure Statement(s) filed \_\_\_\_\_ and \_\_\_\_\_.
- ☐ Assignment document.
- ☐ Power of Attorney and/or Change of Address.
- ☐ Substitute specification filed \_\_\_\_\_.
- ☐ Verified Statement Claiming Small Entity Status.
- ☐ Priority Document.
- ☒ Copy of the International Search Report ☒ and copies of the references cited therein.
- ☐ Other:



2. The following items **MUST** be furnished within the period set forth below in order to complete the requirements for acceptance under 35 U.S.C. 371:

- ☐ a. Translation of the application into English. Note a processing fee will be required if submitted later than the appropriate 20 or 30 months from the priority date.
  - ☐ The current translation is defective for the reasons indicated on the attached Notice of Defective Translation.
- ☐ b. Processing fee for providing the translation of the application and/or the Annexes later than the appropriate 20 or 30 months from the priority date (37 CFR 1.492(f)).
- ☒ c. Oath or declaration of the inventors, in compliance with 37 CFR 1.497(a) and (b), identifying the application by the international application number and international filing date.
  - ☐ The current oath or declaration does not comply with 37 CFR 1.497(a) and (b) for the reasons indicated on the attached PCT/DO/EO/917.
- ☒ d. Surcharge for providing the oath or declaration later than the appropriate 20 or 30 months from the priority date (37 CFR 1.492(e)).

3. Additional claim fees of \$ \_\_\_\_\_ as a ☐ large entity ☐ small entity, including any required multiple dependent claim fee, are required. Applicant must submit the additional claim fees or cancel the additional claims for which fees are due. See attached PTO-875.

**ALL OF THE ITEMS SET FORTH IN 2(a)-2(d) AND 3 ABOVE MUST BE SUBMITTED WITHIN ONE MONTH FROM THE DATE OF THIS NOTICE OR BY ☒ 21 OR ☐ 31 MONTHS FROM THE PRIORITY DATE FOR THE APPLICATION, WHICHEVER IS LATER. FAILURE TO PROPERLY RESPOND WILL RESULT IN ABANDONMENT.**

The time period set above may be extended by filing a petition and fee for extension of time under the provisions of 37 CFR 1.136(a).

4. Translation of the Annexes **MUST** be submitted no later that the time period set above or the annexes will be cancelled. Note processing fee will be required if submitted later than 30 months from the priority date.

5. ☐ The Article 19 amendments are cancelled since a translation was not provided by the appropriate 20 (37 CFR 494(d)) or 30 (37 CFR 1.495(d)) months from the priority date.

Applicant is reminded that any communication to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above. (37 CFR 1.5)

***A copy of this notice MUST be returned with this response.***

Enclosed:

- ☐ PCT/DO/EO/917
- ☐ Notice of Defective Translation
- ☐ PTO-875

FORM PCT/DO/EO/905 (December 1997)

*Sam Andrew*  
Telephone: 703 305-9116

Practitioner's Docket No. 48457

IN THE UNITED STATES DESIGNATED OFFICE (DO/US)

PCT/US98/23998	10 November 1998 (10.11.98)	10 November 1997 (10.11.97)
International Application Number	International Filing Date	International Earliest Priority Date

TITLE OF INVENTION: GLYCOSYLATED MODIFIED PRIMATE LENTIVIRUS ENVELOPE POLYPEPTIDES

APPLICANT FOR DO/US: Dana-Farber Cancer Institute, Inc.; The Trustees of the Columbia University in the City of New York; WYATT, Richard T.; SODROSKI, Joseph G.; KWONG, Peter D.; and HENDRICKSON, Wayne A.

Box PCT  
Assistant Commissioner for Patents  
Washington, D.C. 20231  
ATTENTION: DO/US

COMPLETION OF FILING REQUIREMENTS  
FOR INTERNATIONAL APPLICATION ENTERING NATIONAL  
STAGE IN U.S. DESIGNATED OFFICE (DO/US) UNDER 35 U.S.C. 371

CERTIFICATION UNDER 37 C.F.R. 1.10\*

(Express Mail label number is **mandatory**.)

(Express Mail certification is optional.)

I hereby certify that this Completion of Filing Requirements and the papers indicated as being transmitted therewith is being deposited with the United States Postal Service on this date September 29, in an envelope as "Express Mail Post Office to Addressee" Mailing Label Number EL565096562, addressed to the: Assistant Commissioner for Patents, Washington, D.C. 20231.

Nicole L. M. Valtz  
(type or print name of person mailing paper)

*Nicole L. M. Valtz*  
Signature of person mailing paper

**WARNING:** Certificate of mailing (first class) or facsimile transmission procedures of 37 C.F.R. § 1.8 cannot be used to obtain a date of mailing or transmission for this correspondence.

**\*WARNING:** Each paper or fee filed by "Express Mail" **must** have the number of the "Express Mail" mailing label placed thereon prior to mailing. 37 C.F.R. 1.10(b).

"Since the filing of correspondence under § 1.10 without the Express Mail mailing label thereon is an oversight that can be avoided by the exercise of reasonable care, requests for waiver of this requirement will **not** be granted on petition." Notice of Oct. 24, 1996, 60 Fed. Reg. 56,439, at 56,442.

(Completion of Filing Requirements for International Application Entering National Stage in Designated Office (DO/US) under 35 U.S.C. § 371--page 1 of 5)

This replies to the Notice of Missing Requirements under 35 U.S.C. § 371 and 37 C.F.R. § 1.494 (FORM PCT/DO/EO/905).

A copy of FORM PCT/DO/EO/905 accompanies this response.

### **DECLARATION OR OATH**

- I.** No original declaration or oath was filed. Enclosed is the original combined Declaration and Power of Attorney for this application , including an Added Page to Combined Declaration and Power of Attorney for Signature by Joint Inventors on Behalf of Nonsigning Inventors Who Refuse to Sign or Cannot be Reached (37 CFR 1.47(a)).

The undersigned hereby petitions the Commissioner to accept this Declaration by the joint inventors on behalf of the nonsigning inventors, and have set forth the pertinent facts in the accompanying Statements of Fact in Support of Filing on Behalf of Non-Signing Inventors. Accordingly, the fee set forth in § 1.17(i) is included.

### **FEES**

**II.**

**1. Fees for claims**

No additional fees for claims are required.

### **EXTENSION OF TIME**

- III.** The proceedings herein are for a patent application. The provisions of 37 C.F.R. § 1.1 36(a) apply.

Applicant petitions for an extension of time, the fees for which are set out in 37 C.F.R. § 1.17(a)(1)-(5), for five months.

**Fee \$ 1,850.00**

If an additional extension of time is required, please consider this a petition therefore.

Extension fee due with this request \$ 1,850.00

### **PAYMENT OF FEES**

35 U.S.C. § 371--page 2 of 5)

(Completion of Filing Requirements for International Application Entering National Stage in Designated Office (DO/US) under

V.

Enclosed is a check in the amount of \$1850.00 for the extension of time (37 C.F.R. § 1.136(a)), as well as a check in the amount of \$130.00 for the petition (§ 1.17(i)).

**AUTHORIZATION TO CHARGE ADDITIONAL FEES**

The Commissioner is hereby authorized to charge the following additional fees that may be required by this paper, and during the entire pendency of this application, to Account No. 50-0850.

37 C.F.R. §§ 1.492(a)(2), 1.492(a)(3), or 1.492(a)(5) (filing fees)

37 C.F.R. § 1.492(b) (presentation of extra claims)

37 C.F.R. § 1.17 (application processing fees)

37 C.F.R. § 1.17(a)(1)-(5) (extension fees pursuant to § 1.136(a)).

  
SIGNATURE OF PRACTITIONER

Reg. No. 30,628  
Tel. No.: (617) 345-6054

Ronald I. Eisenstein  
NIXON PEABODY LLP  
101 Federal Street  
Boston, MA 02110

**NIXON PEABODY LLP**

ATTORNEYS AT LAW

101 Federal Street  
Boston, MA 02110-1832

(617) 345-1000

Fax: (617) 345-1300

Direct Dial: (617) 345-6054

E-Mail: reisenstein@nixonpeabody.com

January 10, 2000

Ofra Weinberger, Ph.D.  
Columbia Innovation Enterprise  
Columbia University  
P.H. 15-Center  
630 W. 168<sup>th</sup> Street  
New York, NY 10032

RE: R. Wyatt, et al.  
National Phase Filing of PCT/US98/23998  
Our Ref. No.: 157/ 48457

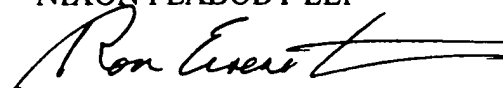
Dear Dr. Weinberger:

Enclosed please find a combined Declaration and Power of Attorney, and an Assignment for Drs. Kwong and Hendrickson, and a Small Entity form for Columbia University in connection with the U.S. filing of the above-identified case. We ask that you have these documents executed and returned to us at your earliest possible convenience.


Thank you for your assistance in this matter. We will keep you advised of further developments.

Please do not hesitate to contact us if you have any questions.

Very truly yours,  
NIXON PEABODY LLP

  
Ronald I. Eisenstein

RIE/nv  
Enclosures

CC: P. Ariniello (w/o enclosures)   
R. Emyanitoff, Ph.D. (w/o enclosures)

DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that: My residence, post office address and citizenship are as stated below next to my name. I believe I am the original, first and sole inventor (if only one name is listed at 201) below or an original, first and joint inventor (if plural names are listed at 201-208 below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

GLYCOSYLATED MODIFIED PRIMATE LENTIVIRUS ENVELOPE POLYPEPTIDES

which is described and claimed in:

- ☐ the specification attached hereto.
- ☐ the specification in U.S. Application Serial Number \_\_\_\_\_  
filed on \_\_\_\_\_; and
- ☒ the specification in PCT international application Number PCT/US98/23998, filed on  
November 10, 1998; and was amended on \_\_\_\_\_.

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above. I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a). I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed.

Prior Foreign/PCT Applications and Any Priority Claims Under 35 U.S.C. §119:			
Application No.	Filing Date	Country	Priority Claimed Under 35 U.S.C. §119?
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO

I hereby claim the benefit under 35 U.S.C. §120 of any United States application(s) or PCT international application(s) designating the United States of America that is/are listed below, and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of 35 U.S.C. §112, I acknowledge the duty to disclose material information as defined in 37 CFR §1.56(a) which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application:



**Prior U.S. Applications or PCT International Applications Designating the U.S.-Benefit  
Under 35 U.S.C. §120**

U.S. Applications		Status (Check On )		
Application Serial No.	U.S. Filing Date	Patented	Pending	Abandoned
08/ 966,932	November 10, 1997		X	
08/ 967,148	November 10, 1997		X	
08/ 967,708	November 10, 1997		X	
08/ 967,403	November 10, 1997		X	
08/ 966,987	November 10, 1997		X	
08/ 976,741	November 24, 1997		X	
09/ 100,762	June 18, 1998		X	
09/ 100,631	June 18, 1998		X	
09/ 100,521	June 18, 1998		X	
09/ 100,763	June 18, 1998		X	
09/ 100,529	June 18, 1998		X	
09/ 100,764	June 18, 1998		X	
<b>PCT Applications Designating the U.S.</b>				
<b>Application No.</b>	<b>Filing Date</b>	<b>U.S. Serial No. Assigned</b>		
PCT/US98/23998	November 10, 1998		X	

**CLAIM FOR BENEFIT OF PRIOR U.S. PROVISIONAL APPLICATION(S)  
(35 U.S.C. §119(e))**

I hereby claim the benefit under Title 35, United States Code, §119(e) of any United States provisional application(s) listed below:

Applicant	Provisional Application Number	Filing Date
R. Wyatt, et al.	60/ 089,581	June 17, 1998
R. Wyatt, et al.	60/ 089,580	June 17, 1998

**POWER OF ATTORNEY:** As a named inventor, I hereby appoint the following attorney(s) with full powers of association, substitution and revocation to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

Ronald I. Eisenstein (Reg. No. 30,628)  
 Jeffrey B. Arnold (Reg. No. 39,540)  
 Lisa A. Dolak (Reg. No. 35,491)  
 Edwin V. Merkel (Reg. No. 40,087)

David S. Resnick (Reg. No. 34,235)  
 Georgia Caton (Reg. No. P-44,957)  
 William T. French (Reg. No. 16,297)

Michael L. Goldman (Reg. No. 30,727)  
 Dennis M. Connolly (Reg. No. 40,964)  
 Gunnar G. Leinberg (Reg. No. 35,584)

<b>SEND CORRESPONDENCE TO:</b> Ronald I. Eisenstein NIXON PEABODY LLP 101 Federal Street Boston, Massachusetts 02110	<b>DIRECT TELEPHONE CALLS TO:</b> Ronald I. Eisenstein (617) 345-6054
--	---

2 0 1	FULL NAME OF INVENTOR	LAST NAME	FIRST NAME	MIDDLE NAME
		WYATT	Richard	T.
	RESIDENCE & CITIZENSHIP	CITY	STATE OR FOREIGN COUNTRY	COUNTRY OF CITIZENSHIP
		Andover	Massachusetts	USA
	POST OFFICE ADDRESS	POST OFFICE ADDRESS	CITY	STATE OR COUNTRY AND ZIP CODE
		11 Delphi Circle	Andover	Massachusetts 01810

2 0 2	FULL NAME OF INVENTOR	LAST NAME	FIRST NAME	MIDDLE NAME
		SODROSKI	Joseph	G
	RESIDENCE & CITIZENSHIP	CITY	STATE OR FOREIGN COUNTRY	COUNTRY OF CITIZENSHIP
		Medford	Massachusetts	USA
	POST OFFICE ADDRESS	POST OFFICE ADDRESS	CITY	STATE OR COUNTRY AND ZIP CODE
		10 Ashland Place	Medford	Massachusetts 02155

2 0 3	FULL NAME OF INVENTOR	LAST NAME	FIRST NAME	MIDDLE NAME
		KWONG	Peter	D.
	RESIDENCE & CITIZENSHIP	CITY	STATE OR FOREIGN COUNTRY	COUNTRY OF CITIZENSHIP
		New York	New York	USA
	POST OFFICE ADDRESS	POST OFFICE ADDRESS	CITY	STATE OR COUNTRY AND ZIP CODE
		352 W. 15 <sup>th</sup> St. Apt. 403	New York	New York 10011

2 0 4	FULL NAME OF INVENTOR	LAST NAME <b>HENDRICKSON</b>	FIRST NAME <b>Wayne</b>	MIDDLE NAME <b>A.</b>
	RESIDENCE & CITIZENSHIP	CITY <b>Hastings-on-Hudson</b>	STATE OR FOREIGN COUNTRY <b>New York</b>	COUNTRY OF CITIZENSHIP <b>USA</b>
	POST OFFICE ADDRESS	POST OFFICE ADDRESS <b>161 Mt. Hope Boulevard</b>	CITY <b>Hastings-on-Hudson</b>	STATE OR COUNTRY AND ZIP CODE <b>New York 10706</b>

I hereby further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Signature of Inventor 201	Date:
Signature of Inventor 202	Date:
Signature of Inventor 203	Date:
Signature of Inventor 204	Date:

ASSIGNMENT

WHEREAS, We, Peter D. Kwong, a United States citizen, residing at 352 West 15<sup>th</sup> Street Apartment 403, New York, New York 10011, and Wayne A. Hendrickson, a United States citizen residing at 161 Mt. Hope Boulevard, Hastings-on-Hudson, New York 10706, have invented certain new and useful improvements in GLYCOSYLATED MODIFIED PRIMATE LENTIVIRUS ENVELOPE POLYPEPTIDES for which we have executed an application for Letters Patent in the United States, filed on December 22, 1999, United States Serial Number \_\_\_\_\_;

AND WHEREAS, The Trustees of Columbia University, a New York corporation, with its principal place of business at West 116<sup>th</sup> Street & Broadway, New York, New York 10027, desires to acquire the entire right, title and interest in and to the said improvements and the said Application:

NOW, THEREFORE, for good and valuable consideration, including salary or payment for the making of inventions, or employee benefits, the receipt of which is hereby acknowledged, we, the said inventors, do hereby acknowledge that we have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said The Trustees of Columbia University, its successors, legal representatives and assigns, the entire right, title and interest throughout the world in, to and under the said improvements, and the said application and all divisions, renewals and continuations thereof, and all Letters Patent of the United States which may be granted thereon and all reissues and extensions thereof, and all rights of priority under International Conventions and applications for Letters Patent which may hereafter be filed for said improvements in any country or countries foreign to the United States, and all Letters Patent which may be granted for said improvements in any country or countries foreign to the United States and all extensions, renewals and reissues thereof; and we hereby authorize and request the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue Patents on applications as aforesaid, to issue all Letters Patent for said improvements to the said The Trustees of Columbia University, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND WE HEREBY covenant and agree that we will communicate to the said The Trustees of Columbia University, its successors, legal representatives and assigns, any facts known to us respecting said improvements and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing and reissue applications, make all rightful oaths and generally do everything possible to aid the said The Trustees of Columbia University, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for said improvements in all countries.

The undersigned hereby grant(s) the law firm of Nixon Peabody LLP of 101 Federal Street, Boston, Massachusetts 02110, U.S.A. the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark, Office for recordation of this document.

IN TESTIMONY WHEREOF, I, Peter D. Kwong, hereunto set my hand and seal this \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
Peter D. Kwong

STATE OF \_\_\_\_\_  
COUNTY OF \_\_\_\_\_ SS:

This \_\_\_\_ day of \_\_\_\_\_, 20\_\_, before me personally came the above-named \_\_\_\_\_, to me personally known as the individual who executed the same of his/her own free will for the purposes therein set forth.

\_\_\_\_\_  
Notary Public

IN TESTIMONY WHEREOF, I, Wayne A. Hendrickson, hereunto set my hand and seal this \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
Wayne A. Hendrickson

STATE OF \_\_\_\_\_  
COUNTY OF \_\_\_\_\_ SS:

This \_\_\_\_ day of \_\_\_\_\_, 20\_\_, before me personally came the above-named \_\_\_\_\_, to me personally known as the individual who executed the same of his/her own free will for the purposes therein set forth.

\_\_\_\_\_  
Notary Public

Practitioner's Docket No. 157/ 48457  
**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of: R. Wyatt, et al.  
Serial No.:  
Filed on: December 22, 1999  
Title: GLYCOSYLATED MODIFIED PRIMATE LENTIVIRUS ENVELOPE  
POLYPEPTIDES

Sir:

**STATEMENT CLAIMING SMALL ENTITY STATUS  
(37 CFR 1.9(f) and 1.27(b))—NONPROFIT ORGANIZATION**

I hereby state that I am an official empowered to act on behalf of the nonprofit organization identified below:

Name of Nonprofit Organization The Trustees of Columbia University  
Address of Nonprofit Organization West 116<sup>th</sup> Street & Broadway, New York, New York 10027

**TYPE OF NONPROFIT ORGANIZATION**

- ☐ University or Other Institution of Higher Education
- ☐ Tax Exempt Under Internal Revenue Service Code (26 USC 501(a) and 501 (c)(3))
- ☐ Nonprofit Scientific or Educational Under Statute of State of the United States of America  
(Name of State \_\_\_\_\_)  
(Citation of Statute \_\_\_\_\_)
- ☐ Would Qualify as Tax Exempt Under Internal Revenue Service Code (26 USC 501(a) and 501(c)(3)), if Located in the United States of America
- ☐ Would Qualify as Nonprofit Scientific or Educational Under Statute of State of the United States of America if Located in the United States of America  
(Name of State \_\_\_\_\_)  
(Citation of Statute \_\_\_\_\_)

I hereby state that the nonprofit organization identified above qualifies as a nonprofit organization, as defined in 37 CFR 1.9(e), for purposes of paying reduced fees to the United States Patent and Trademark Office under Sections 41(a) and (b) of Title 35, United States Code, with regard to the invention described in

- ☐ the specification filed herewith, with title as listed above.
- ☒ the application identified above.
- ☐ the patent identified above.

I hereby state that rights under contract or law have been conveyed to, and remain with, the nonprofit organization, with regard to the above identified invention.

If the rights held by the nonprofit organization are not exclusive, each individual, concern or organization having rights to the invention is listed below\* and no rights to the invention are held by any person, other than the inventor, who would not qualify as an independent inventor under 37 C.F.R. 1.9(c), if that person made the invention, or by any concern that would not qualify as a small business concern under 37 CFR 1.9(d), or a nonprofit organization under 37 CFR 1.9(e)

*\*NOTE: Separate statements are required from each named person, concern or organization having rights to the invention as to their status as small entities. (37 CFR 1.27).*

Each such person, concern or organization having any rights in the invention is listed below:

☐ No such person, concern, or organization exists.

☒ Each such person, concern or organization is listed below.

FULL NAME Dana-Farber Cancer Institute  
ADDRESS 44 Binney Street  
Boston, MA 02115  
☐ INDIVIDUAL    ☐ SMALL BUSINESS CONCERN    ☒ NONPROFIT ORGANIZATION

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

*(check the following item, if desired)*

*NOTE: The following verification statement need not be made in accordance with the rules published on October 10, 1997, 62 Fed. Reg. 52131, effective December 1, 1997.*

*NOTE: "The presentation to the Office (whether by signing, filing, submitting, or later advocating) of any paper by a party, whether a practitioner or non-practitioner, constitutes a certification under § 10.18(b) of this chapter. Violations of § 10.18(b)(2) of this chapter by a party, whether a practitioner or non-practitioner, may result in the imposition of sanctions under § 10.18(c) of this chapter. Any practitioner violating § 10.18(b) may also be subject to disciplinary action. See §§ 10.18(d) and 10.23(c)(15)." 37 CFR 1.4(d)(2).*

[ ] I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

Name of Person Signing \_\_\_\_\_

Title in Organization \_\_\_\_\_

Address of Person Signing \_\_\_\_\_  
\_\_\_\_\_

SIGNATURE \_\_\_\_\_

Date \_\_\_\_\_



#5

101 Federal Street  
Boston, MA 02110-1832  
(617) 345-1000  
Fax: (617) 345-1300  
Direct Dial: (617) 345-6054  
E-Mail: reisenstein@nixonpeabody.com

April 21, 2000

Ofra Weinberger, Ph.D.  
Columbia Innovation Enterprise  
Columbia University  
P.H. 15-Center  
630 W. 168<sup>th</sup> Street  
New York, NY 10032

RE: R. Wyatt, et al.  
U.S.S.N. 09/446,799  
National Phase Filing of PCT/US98/23998  
Our Ref. No.: 48457

Dear Dr. Weinberger:

Enclosed please find a copy of a Decision on Petition we received April 20, 2000 from the U.S. PTO in connection with the above-identified matter. This application has been successfully revived and assigned U.S. serial number 09/446,799.

To obtain a filing date for the application in the national stage in the U.S., an executed declaration must be submitted. We have previously sent you a copy of the Declaration, Assignment, and small entity documents for filing in connection with this application, as well as for the recently revived application U.S.S.N. 09/446,820. Please have these documents executed and returned to us at your earliest convenience.

Thank you for your assistance in this matter. We will keep you advised of further developments.

Please do not hesitate to contact us if you have any questions.

Very truly yours,  
NIXON PEABODY LLP

/s/  
Ronald I. Eisenstein

RIE/nv  
Enclosures

CC: P. Ariniello (w/o enclosures)  
R. Emyanitoff, Ph.D. (w/o enclosures)



UNITED STATES DEPARTMENT OF COMMERCE  
Patent Cooperation Treaty  
Legal Office

Patent Cooperation Treaty  
Legal Office

Address: Assistant Commissioner for Patents  
Box PCT  
Washington, D.C. 20231

APR 10 2000

Ronald I. Eisenstein  
NIXON PEABODY LLP  
101 Federal Street  
Boston, MA 02110

In re Application of  
WYATT, Richard T. *et al*  
U.S. Application No.: 09/446,799  
PCT No.: PCT/US98/23998  
Int. Filing Date: 10 November 1998  
Priority Date: 10 November 1997  
Attorney Docket No.: 157/48457  
For: GLCOSYLATED MODIFIED PRIMATE  
LENTIVIRUS ENVELOPE  
POLYPEPTIDES

DECISION ON  
PETITION FOR REVIVAL  
UNDER 37 CFR 1.137(b)

The petition to revive under 37 CFR 1.137(b) filed 22 December 1999 in the above-captioned application is hereby **GRANTED** as follows:

Applicants' statement that the "entire delay in filing the required reply from the due date until the filing of this petition was unintentional" satisfies 37 CFR 1.137(b)(3). The appropriate basic national fee and petition fee have been submitted. Accordingly, all requirements under 37 CFR 1.137(b) have been satisfied.

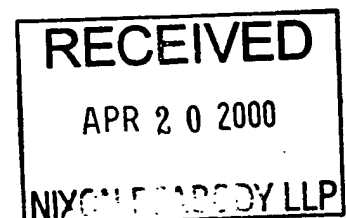
A review of the above-captioned application reveals that applicants have not submitted a declaration in compliance with 37 CFR 1.497.

The application is being forwarded to the United States Designated/Elected Office for further processing including mailing a NOTIFICATION OF MISSING REQUIREMENTS (Form PCT/DO/EO/905) for failing to provide an oath or declaration and surcharge fee pursuant to 37 CFR 1.492(e).

Leonard Smith  
PCT Legal Examiner  
PCT Legal Office

James Thomson  
Petitions Attorney  
PCT Legal Office

Tel.: (703) 308-6457





#5

# NIXON PEABODY LLP

ATTORNEYS AT LAW  
101 Federal Street  
Boston, MA 02110-1832  
(617) 345-1000  
Fax: (617) 345-1300  
Direct Dial: (617) 345-6054  
E-Mail: reisenstein@nixonpeabody.com

May 22, 2000

Ofra Weinberger, Ph.D.  
Columbia Innovation Enterprise  
Columbia University  
P.H. 15-Center  
630 W. 168<sup>th</sup> Street  
New York, NY 10032

RE: R. Wyatt, et al.  
U.S.S.N. 09/446,799  
National Phase Filing of PCT/US98/23998  
Our Ref. No.: 48457

J. Sodroski, et al.  
U.S.S.N. 09/446,820  
National Phase Filing of PCT/US98/24001  
Our Ref. No.: 48436

Dear Dr. Weinberger:

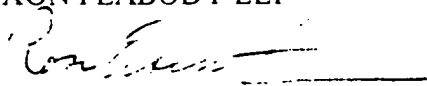
At this time we are writing to remind you that to obtain a filing date for the above-identified applications in the national stage in the U.S., an executed declaration must be submitted. We have previously sent you a copy of the Declaration, Assignment, and small entity documents for filing in connection with these applications. Again, we ask that you please have these documents executed and returned to us at your earliest convenience.

Thank you for your assistance in this matter. We will keep you advised of further developments.

NIXON PEABODY LLP

Please do not hesitate to contact us if you have any questions.

Very truly yours,  
NIXON PEABODY LLP

  
Ronald I. Eisenstein

RIE/nv/mrv

cc: P. Ariniello  
R. Emyanitoff, Ph.D.

**NIXON PEABODY LLP**

ATTORNEYS AT LAW

101 Federal Street

Boston, MA 02110-1832

(617) 345-1000

Fax: (617) 345-1300

Direct Dial: (617) 345-6054

E-Mail: reisenstein@nixonpeabody.com

August 28, 2000

**VIA CERTIFIED MAIL**

Ofra Weinberger, Ph.D.  
Columbia Innovation Enterprise  
Columbia University  
P.H. 15-Center  
630 W. 168<sup>th</sup> Street  
New York, NY 10032

RE: R. Wyatt, et al.  
U.S.S.N. 09/446,799  
National Phase Filing of PCT/US98/23998  
Our Ref. No.: 48457

J. Sodroski, et al.  
U.S.S.N. 09/446,820  
National Phase Filing of PCT/US98/24001  
Our Ref. No.: 48436

Dear Dr. Weinberger:

At this time we are writing to remind you that to obtain a filing date for the above-identified applications in the national stage in the U.S., an executed declaration must be submitted.

We originally sent you on January 10, 2000 copies of the Declaration, Assignment, and small entity documents, shortly after the filing of the U.S. national phase application (on December 22, 1999). Additional reminder letters regarding these documents were sent on numerous occasions including April 3, 2000 (with Notice of Missing Requirements), April 21, 2000 (with Notice of Missing Requirements), and May 22, 2000, as well as by e-mail from DFCI on August 18, 2000.

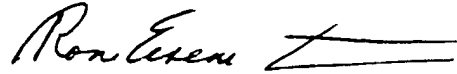
Please note that the final deadline for responding to the Notification of Missing Requirements (under 35 U.S.C. 371) is **October 11, 2000** for U.S.S.N. 09/446,799 and

September 30, 2000 for U.S.S.N. 09/446,820. Again, we ask that you please have these documents executed and returned to us at your earliest convenience. In the absence of receiving this we will be forced to resort to the provisions of 37 CFR 1.47(a), which will add to the cost.

Thank you for your assistance in this matter. We will keep you advised of further developments.

Please do not hesitate to contact us if you have any questions.

Very truly yours,  
NIXON PEABODY LLP

  
Ronald I. Eisenstein

RIE/nv/mrv

cc: P. Ariniello  
R. Emyanitoff, Ph.D.  
J. Sodroski

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

APPLICANT: Richard T. WYATT  
Joseph G. SODROSKI  
Peter D. KWONG  
Wayne A. HENDRICKSON

SERIAL NO.: 09/446,799

FILED: -

FOR: GLYCOSYLATED MODIFIED PRIMATE LENTIVIRUS ENVELOPE  
POLYPEPTIDES

Assistant Commissioner for Patents  
Box PCT  
Washington, D.C. 20231

Sir:

**A STATEMENT OF FACTS IN SUPPORT OF FILING  
ON BEHALF OF NON-SIGNING INVENTORS**

**(37 CFR 1.47(a))**

I, Nancy N. Grodin, a citizen of United States, residing in Newton, Massachusetts, make this declaration providing facts in support of filing on behalf of the non-signing inventors, Peter D. Kwong and Wayne A. Hendrickson.

I am a Licensing Associate in the Office of Technology Transfer employed by Dana-Farber Cancer Institute, Boston, Massachusetts.

I make this declaration as a person having first hand knowledge of the facts recited herein.

Two of the applicants of the above described application, Peter D. Kwong and Wayne A. Hendrickson, are scientists at Columbia University. Therefore, on or about August 11, 2000, I prepared and sent an e-mail to Ofra Weinberger, an Associate Director of Health Sciences at Columbia Innovation Enterprise (i.e., the technology transfer office), Columbia University, New York, New York. In the e-mail, I requested that she have the Columbia University scientists execute the documents sent to her by our outside counsel, the law firm of Nixon Peabody LLP, Boston, Massachusetts. A copy of the e-mail is attached hereto as Exhibit F.

In September, 2000, I was advised by Dr. Weinberger that while Columbia University would execute a Small Entity document, it would not at this time have the Declarations executed. She stated that as they had other applications pending which applications involve some of the



same inventors from both Dana-Farber Cancer Institute and Columbia University, they would not have the Declarations executed until advised by their attorney that all issues of any possible overlapping subject matter had been resolved. This date, less than one and one-half months before the final deadline, was the first time they advised us that they were refusing to sign the Declarations.

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Sept. 12, 2000

Date

Nancy N. Grodin

Nancy N. Grodin

**Valtz, Nicole**

**From:** Eisenstein, Ronald  
**Sent:** Friday, August 18, 2000 8:47 AM  
**To:** Valtz, Nicole  
**Subject:** FW: Dana-Farber Cases #577 and #578

-----Original Message-----

**From:** Grodin, Nancy N. [mailto:Nancy\_Grodin@dfci.harvard.edu]  
**Sent:** Friday, August 11, 2000 12:52 PM  
**To:** Ofra Weinberger Ph. D. (E-mail)  
**Cc:** Ronald I. Eisenstein (E-mail)  
**Subject:** Dana-Farber Cases #577 and #578

Dear Ofra:

As per my telephone message of earlier today, I am contacting you regarding two of our cases in which Columbia's Drs. Kwong and Hendrickson, are inventors.

DFCI #577 "Stabilized Primate Lentivirus Envelope Glycoproteins", DFCI inventors are Sodroski, Farzan and Wyatt  
DFCI #578 "Glycosylated Modified Primate Lentivirus Envelope Polypeptides", DFCI inventors are Sodroski and Wyatt

With regard to these applications, our outside counsel, Ron Eisenstein, sent you certain documents, including entity status, which require Columbia signatures. Please look into this as soon as you can so we can continue with our prosecution and avoid unnecessary penalties due to missed deadlines. If you need assistance please contact me and I would be happy to help.

I look forward to hearing from you on this matter as soon as possible. Hope you are enjoying the summer.

Regards,

Nancy

---

Nancy Grodin, MS, MBA  
Licensing Associate  
Office of Technology Transfer  
Dana-Farber Cancer Institute  
44 Binney Street  
Boston, MA 02115  
Tel: (617) 632 5516  
Fax: (617) 632 4012  
email: nancy\_grodin@dfci.harvard.edu  
OTT Website: <http://ott.dfc.harvard.edu/>

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Richard T. WYATT  
Joseph G. SODROSKI  
Peter D. KWONG  
Wayne A. HENDRICKSON

SERIAL NO.: 09/446,799

FILED: -

FOR: GLYCOSYLATED MODIFIED PRIMATE LENTIVIRUS ENVELOPE  
POLYPEPTIDES

Assistant Commissioner for Patents  
Box PCT  
Washington, D.C. 20231

Sir:

**A STATEMENT OF FACTS IN SUPPORT OF FILING**

**ON BEHALF OF NON-SIGNING INVENTORS**

**(37 CFR 1.47(a))**

I, Joseph G. Sodroski, a citizen of United States, residing in Medford, Massachusetts, make this declaration providing facts in support of filing on behalf of the non-signing inventors, Peter D. Kwong and Wayne A. Hendrickson.

I am a joint inventor of the above mentioned patent application and I am employed by Dana-Farber Cancer Institute, Boston, Massachusetts.

I make this declaration as a person having first hand knowledge of the facts recited herein.

I worked in collaboration with Richard Wyatt at Dana-Farber Cancer Institute, Boston, Massachusetts and Peter D. Kwong and Wayne A. Hendrickson, at Columbia University, New York, New York, for the research that resulted in the invention. During that time, we jointly invented certain new and useful improvements in GLYCOSYLATED MODIFIED PRIMATE LENTIVIRUS ENVELOPE POLYPEPTIDES.

I have been shown the Declarations by Nicole L.M. Valtz and Nancy N. Gordin and I am thus aware that Drs. Kwong and Hendrickson have not signed the declarations in the above mentioned matter.

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

9/12/00

Date

Joseph G. Sodroski

Joseph G. Sodroski

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Richard T. WYATT  
Joseph G. SODROSKI  
Peter D. KWONG  
Wayne A. HENDRICKSON

SERIAL NO.: 09/446,799

FILED: -

FOR: GLYCOSYLATED MODIFIED PRIMATE LENTIVIRUS ENVELOPE  
POLYPEPTIDES

Assistant Commissioner for Patents  
Box PCT  
Washington, D.C. 20231

Sir:

**A STATEMENT OF FACTS IN SUPPORT OF FILING  
ON BEHALF OF NON-SIGNING INVENTORS**

**(37 CFR 1.47(a))**

I, Nicole L.M. Valtz, a citizen of United States, residing in Jamaica Plain, Massachusetts, make this declaration providing facts in support of filing on behalf of the non-signing inventors, Peter D. Kwong and Wayne A. Hendrickson.

I am a Technical Specialist employed by the law firm of Nixon Peabody LLP, Boston, Massachusetts. I make this declaration as a person having first hand knowledge of the facts recited herein.

Two of the applicants, Drs. Kwong and Hendrickson, are scientists at Columbia University. Therefore, on or about January 10, 2000, I prepared and sent a letter to Ofra Weinberger, an Associate Director of Health Sciences at Columbia Innovation Enterprise (i.e., the technology transfer office), Columbia University, New York, New York, requesting that she obtain signatures for us from the inventors Peter D. Kwong and Wayne A. Hendrickson as is the standard procedure. The letter enclosed Declaration and Power of Attorney, Small Entity and Assignment documents for the inventors to execute. A copy of the letter is attached hereto as Exhibit A.

On or about April 21, 2000, I prepared and sent a letter to said Ofra Weinberger enclosing a Decision on Petition to Revive under 37 CFR 1.137(b). The letter repeated the

request for the inventors to execute the previously sent Declaration, Power of Attorney, Small Entity and Assignment forms. A copy of the letter is attached hereto as Exhibit B.

On or about May 22, 2000 I prepared and my secretary, Maria R. Valinch, sent a letter to said Ofra Weinberger requesting execution of the previously sent Declaration and Power of Attorney, Small Entity and Assignment documents, for the third time. A copy of the letter is attached hereto as Exhibit C.

Upon information and belief, on or about August 18, an e-mail was sent by Nancy N. Grodin, a Licensing Associate in the Office of Technology Transfer at Dana-Farber Cancer Institute reminding Dr. Weinberger that we had not received the executed declarations or any other response.

On or about August 28, 2000, I prepared and my secretary, Maria R. Valinch, sent a letter to said Ofra Weinberger via certified mail requesting execution of the previously sent Declaration and Power of Attorney, Small Entity and Assignment documents and advising about the intention of the other inventors, Richard T. Wyatt and Joseph G. Sodroski, to file under 37 C.F.R. 1.47(a) unless signed documents were received. A copy of the letter is attached hereto as Exhibit D; a copy of the Receipt for Certified Mail is attached hereto as Exhibit E.

Neither Ofra Weinberger nor the inventors, Peter D. Kwong or Wayne A. Hendrickson, have returned signed copies of the Declaration and Power of Attorney, Small Entity and Assignment documents to our office in response to any of the above mentioned letters.

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Sept. 28, 2000

Date

Nicole L.M. Valtz

Nicole L.M. Valtz

**DECLARATION AND POWER OF ATTORNEY**

As a below named inventor, I hereby declare that: My residence, post office address and citizenship are as stated below next to my name. I believe I am the original, first and sole inventor (if only one name is listed at 201) below or an original, first and joint inventor (if plural names are listed at 201-208 below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:  
GLYCOSYLATED MODIFIED PRIMATE LENTIVIRUS ENVELOPE POLYPEPTIDES

which is described and claimed in:

- ☐ the specification attached hereto.
- ☐ the specification in U.S. Application Serial Number \_\_\_\_\_  
filed on \_\_\_\_\_; and
- X the specification in PCT international application Number PCT/US98/23998, filed on  
November 10, 1998; and was amended on \_\_\_\_\_.

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above. I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a). I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed.

Prior Foreign/PCT Applications and Any Priority Claims Under 35 U.S.C. § 119:			
Application No.	Filing Date	Country	Priority Claimed Under 35 U.S.C. § 119?
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO

I hereby claim the benefit under 35 U.S.C. § 120 of any United States application(s) or PCT international application(s) designating the United States of America that is/are listed below, and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose material information as defined in 37 CFR § 1.56(a) which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application:

Prior U.S. Applications or PCT International Applications Designating the U.S-Benefit Under 35 U.S.C. §120					
U.S. Applications		Status (Check One)			
Application Serial No.	U.S. Filing Date	Patented	Pending	Abandoned	
08/ 966,932	November 10, 1997		X		
08/ 967,148	November 10, 1997		X		
08/ 967,708	November 10, 1997		X		
08/ 967,403	November 10, 1997		X		
08/ 966,987	November 10, 1997		X		
08/ 976,741	November 24, 1997		X		
09/ 100,762	June 18, 1998		X		
09/ 100,631	June 18, 1998		X		
09/ 100,521	June 18, 1998		X		
09/ 100,763	June 18, 1998		X		
09/ 100,529	June 18, 1998		X		
09/ 100,764	June 18, 1998		X		
PCT Applications Designating the U.S.					
Application No.	Filing Date	U.S. Serial No. Assigned			
PCT/US98/23998	November 10, 1998			X	

**CLAIM FOR BENEFIT OF PRIOR U.S. PROVISIONAL APPLICATION(S)**  
(35 U.S.C. §119(e))

I hereby claim the benefit under Title 35, United States Code, §119(e) of any United States provisional application(s) listed below:

Applicant	Provisional Application Number	Filing Date
R. Wyatt, et al.	60/ 089,581	June 17, 1998
R. Wyatt, et al.	60/ 089,580	June 17, 1998



**POWER OF ATTORNEY:** As a named inventor, I hereby appoint the following attorney(s) with full powers of association, substitution and revocation to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

Ronald I. Eisenstein (Reg. No. 30,628)  
 Jeffrey B. Arnold (Reg. No. 39,540)  
 Lisa A. Dolak (Reg. No. 35,491)  
 Edwin V. Merkel (Reg. No. 40,087)

David S. Resnick (Reg. No. 34,235)  
 Georgia Caton (Reg. No. P-44,957)  
 William T. French (Reg. No. 16,297)

Michael L. Goldman (Reg. No. 30,727)  
 Dennis M. Connolly (Reg. No. 40,964)  
 Gunnar G. Leinberg (Reg. No. 35,584)

<b>SEND CORRESPONDENCE TO:</b> Ronald I. Eisenstein NIXON PEABODY LLP 101 Federal Street Boston, Massachusetts 02110	<b>DIRECT TELEPHONE CALLS TO:</b> Ronald I. Eisenstein (617) 345-6054
--	---

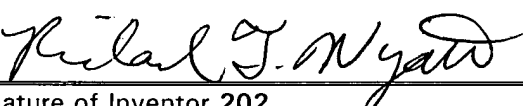
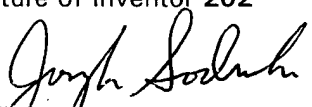
2 0 1	FULL NAME OF INVENTOR	LAST NAME	FIRST NAME	MIDDLE NAME
		WYATT	Richard	T.
	RESIDENCE & CITIZENSHIP	CITY	STATE OR FOREIGN COUNTRY	COUNTRY OF CITIZENSHIP
		Andover	Massachusetts	USA
	POST OFFICE ADDRESS	POST OFFICE ADDRESS	CITY	STATE OR COUNTRY AND ZIP CODE
		11 Delphi Circle	Andover	Massachusetts 01810

2 0 2	FULL NAME OF INVENTOR	LAST NAME	FIRST NAME	MIDDLE NAME
		SODROSKI	Joseph	G
	RESIDENCE & CITIZENSHIP	CITY	STATE OR FOREIGN COUNTRY	COUNTRY OF CITIZENSHIP
		Medford	Massachusetts	USA
	POST OFFICE ADDRESS	POST OFFICE ADDRESS	CITY	STATE OR COUNTRY AND ZIP CODE
		10 Ashland Place	Medford	Massachusetts 02155

2 0 3	FULL NAME OF INVENTOR	LAST NAME	FIRST NAME	MIDDLE NAME
		KWONG	Peter	D.
	RESIDENCE & CITIZENSHIP	CITY	STATE OR FOREIGN COUNTRY	COUNTRY OF CITIZENSHIP
		New York	New York	USA
	POST OFFICE ADDRESS	POST OFFICE ADDRESS	CITY	STATE OR COUNTRY AND ZIP CODE
		352 W. 15 <sup>th</sup> St. Apt. 403	New York	New York 10011

2 0 4	FULL NAME OF INVENTOR	LAST NAME <b>HENDRICKSON</b>	FIRST NAME <b>Wayne</b>	MIDDLE NAME <b>A.</b>
	RESIDENCE & CITIZENSHIP	CITY <b>Hastings-on-Hudson</b>	STATE OR FOREIGN COUNTRY <b>New York</b>	COUNTRY OF CITIZENSHIP <b>USA</b>
	POST OFFICE ADDRESS	POST OFFICE ADDRESS <b>161 Mt. Hope Boulevard</b>	CITY <b>Hastings-on-Hudson</b>	STATE OR COUNTRY AND ZIP CODE <b>New York 10706</b>

I hereby further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Signature of Inventor 201 	Date: <b>1/25/00</b>
Signature of Inventor 202 	Date: <b>1/31/00</b>
Signature of Inventor 203	Date:
Signature of Inventor 204	Date:

Practitioner's Docket No. 48457

**ADDED PAGE TO COMBINED DECLARATION  
AND POWER OF ATTORNEY FOR SIGNATURE BY JOINT INVENTOR(S)  
ON BEHALF OF NONSIGNING INVENTOR(S) WHO REFUSE(S)  
TO SIGN OR CANNOT BE REACHED (37 CFR 1.47(a))**

**WARNING:** "37 C.F.R. § 1.47(a) and 35 U.S.C. § 116 ¶ 2 require all available joint inventors to file an application 'on behalf' of themselves and on behalf of a joint inventor who 'cannot' be found or reached after diligent effort" "or who refuses to 'join in an application.'" M.P.E.P. § 409.03(a), 6th ed., rev. 3 (emphasis added). See also 62 Fed. Reg. 53,131, 53,137, 203 O.G. 68 (Oct. 10, 1997).

I. I am an above named joint inventor and have signed this declaration on my own behalf and also sign this declaration under 37 CFR 1.47(a) on behalf of the nonsigning joint inventors, particulars for whom are:

Full name of first Peter D. Kwong  
nonsigning inventor who

☒ refuses to sign  
☐ cannot be found or reached

*NOTE: The name of the nonsigning inventor(s) should preferably also be filled in at the appropriate prior space in the declaration, adding the words "nonsigning inventor-completed on added page."*

U.S.A.  
*Country of Citizenship of nonsigning inventor*

352 W. 15<sup>th</sup> Street Apt. 403; New York, New York 10011  
*Last known address of nonsigning inventor*

Full name of (first, second, etc.) Wayne A. Hendrickson  
nonsigning inventor who

☒ refuses to sign  
☐ cannot be found or reached

*NOTE: The name of the nonsigning inventor(s) should preferably also be filled in at the appropriate prior space in the declaration, adding the words "nonsigning inventor-completed on added page."*

U.S.A.  
*Country of Citizenship of nonsigning inventor*

161 Mt. Hope Blvd., Hastings-on-Hudson, New York 10706

*NOTE: Ordinarily, the last known address will be the last known residence of the nonsigning inventor(s). A post office box is insufficient. Other addresses at which the nonsigning inventor(s) may be reached should also be given. These can best be given in the Statement Of Facts in Support Of Filing On Behalf Of Nonsigning Inventor. MPEP § 409.03(e), 6th ed.*

II. Accompanying this declaration is:

- (1) A STATEMENT OF FACTS IN SUPPORT OF FILING ON BEHALF OF NONSIGNING INVENTORS
- (2) THE PETITION FEE OF \$130.00 (37 CFR 1.17(i))

Richard T. Wyatt

**(type or print name of joint inventor  
signing on behalf of nonsigning inventor)**

Joseph G. Sodroski

Richard T. Wyatt

**Signature**

Joseph G. Sodroski

Tab settings == == ==

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

WYATT, Richard T.

SODROSKI, Joseph G.

Additional name(s) of conveying party(ies) attached?

☐ Yes ☒ No

2. Name and address of receiving party(ies):

Name: Dana-Farber Cancer Institute, Inc.

Internal Address: \_\_\_\_\_

Street Address: 44 Binney Street

City: Boston State: MA ZIP: 02115

Additional name(s) & address(es) attached?

☐ Yes ☒ No

3. Nature of conveyance:

☒ Assignment

☐ Merger

☐ Security Agreement

☐ Change of Name

☐ Other \_\_\_\_\_

Execution Date: January 25, 2000

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: \_\_\_\_\_

A. Patent Application No.(s)

09/446,799

B. Patent No.(s)

10/03/2000 AGIZAW 00000071 09446799

03 FC:581

40.00 OP

Additional numbers attached?

☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Ronald I. Eisenstein (Reg. No. 30,628)

Internal Address: NIXON PEABODY LLP

Street Address: 101 Federal Street

City: Boston State: MA ZIP: 02110

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41) ..... \$ 40.00

☒ Enclosed

☐ Authorized to be charged to deposit account

8. Deposit account number:

(Attach duplicate copy of this page if paying by deposit account)

DO NOT USE THIS SPACE

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Ronald I. Eisenstein (Reg.No. 30,628)

Name of Person Signing

Ronald I. Eisenstein

Signature

9/29/00

Date

Total number of pages including cover sheet, attachments, and document: 4

Attachment to Form PTO - 1595  
Recordation Form Cover Sheet

Additional Execution Dates

- January 31, 2000

ASSIGNMENT

WHEREAS, We, Richard T. Wyatt, a United States citizen, residing at 11 Delphi Circle, Andover MA 01810 and Joseph G. Sodroski, a United States citizen residing at 10 Ashland Place, Medford MA 02155, have invented certain new and useful improvements in GLYCOSYLATED MODIFIED PRIMATE LENTIVIRUS ENVELOPE POLYPEPTIDES for which we have executed an application for Letters Patent in the United States, filed on December 22, 1999, United States Serial Number 09/446,799;

AND WHEREAS, the Dana-Farber Cancer Institute, Inc., a Massachusetts corporation, with its principal place of business at 44 Binney Street, Boston MA 02115, desires to acquire the entire right, title and interest in and to the said improvements and the said Application:

NOW, THEREFORE, for good and valuable consideration, including salary or payment for the making of inventions, or employee benefits, the receipt of which is hereby acknowledged, we, the said inventors, do hereby acknowledge that we have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said Dana-Farber Cancer Institute, Inc., its successors, legal representatives and assigns, the entire right, title and interest throughout the world in, to and under the said improvements, and the said application and all divisions, renewals and continuations thereof, and all Letters Patent of the United States which may be granted thereon and all reissues and extensions thereof, and all rights of priority under International Conventions and applications for Letters Patent which may hereafter be filed for said improvements in any country or countries foreign to the United States, and all Letters Patent which may be granted for said improvements in any country or countries foreign to the United States and all extensions, renewals and reissues thereof; and we hereby authorize and request the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue Patents on applications as aforesaid, to issue all Letters Patent for said improvements to the said Dana-Farber Cancer Institute, Inc., its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND WE HEREBY covenant and agree that we will communicate to the said the Dana-Farber Cancer Institute, Inc., its successors, legal representatives and assigns, any facts known to us respecting said improvements and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing and reissue applications, make all rightful oaths and generally do everything possible to aid the said Dana-Farber Cancer Institute, Inc., its successors, legal representatives and assigns, to obtain and enforce proper patent protection for said improvements in all countries.

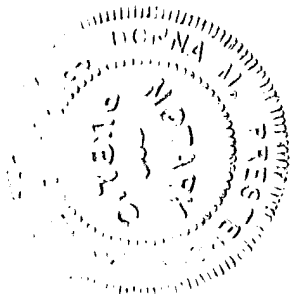
The undersigned hereby grant(s) the law firm of Nixon Peabody LLP of 101 Federal Street, Boston, Massachusetts 02110, U.S.A. the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark, Office for recordation of this document.

IN TESTIMONY WHEREOF, I, Richard T. Wyatt, hereunto set my hand and seal this 25 day of January, 2000.

Richard T. Wyatt  
Richard T. Wyatt

STATE OF Massachusetts  
COUNTY OF Suffolk SS:

This 25<sup>th</sup> day of January, 2000, before me personally came the above-named RICHARD T. WYATT, to me personally known as the individual who executed the same of his/her own free will for the purposes therein set forth.



Donna M. Presterone  
Notary Public  
DONNA M. PRESTERONE  
Notary Public  
My Commission Expires  
August 16, 2002

IN TESTIMONY WHEREOF, I, Joseph G. Sodroski, hereunto set my hand and seal this 31 day of January, 2000

Joseph G. Sodroski  
Joseph G. Sodroski

STATE OF Massachusetts  
COUNTY OF Suffolk SS:

This 31 day of January, 2000, before me personally came the above-named JOSEPH G. SODROSKI, to me personally known as the individual who executed the same of his/her own free will for the purposes therein set forth.



Donna M. Presterone  
Notary Public  
DONNA M. PRESTERONE  
Notary Public  
My Commission Expires  
August 16, 2002



2 53 R. E. Eisenstein  
F-5 1,47

US Postal Service  
**Receipt for Certified Mail**  
No Insurance Coverage Provided.  
Do not use for International Mail (See reverse)

Sent to <u>Ofra Weinberger, Ph.D.</u>	
<u>Columbia Univ</u>	
Street & Number <u>630 W. 168th St.</u>	
Post Office, State, & ZIP Code <u>New York N.Y. 10032</u>	
Postage	\$ <u>55</u>
Certified Fee	<u>1.10</u>
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	<u>Sasha</u>
Return Receipt Showing to Whom, Date, & Addressee's Address	<u>1007</u>
TOTAL Postage & Fees	<u>82.15</u>
Postmark of Date	<u>AUG 25 1995</u>

PS Form 3800, April 1995

Is your **RETURN ADDRESS** completed on the reverse side?

<b>SENDER:</b> <input type="checkbox"/> Complete items 1, 2 for additional services <input type="checkbox"/> Complete items 3, 4a, and 4b. <input type="checkbox"/> Print your name and address on the reverse of this form so that we can return the card to you <input type="checkbox"/> Attach this form to the front of the mailpiece, or on the back if space does not permit. <input type="checkbox"/> Write "Return Receipt Requested" on the mailpiece below the article number. <input type="checkbox"/> The Return Receipt will show to whom the article was delivered and the date delivered.		<b>3. Article Addressed to:</b> <u>Ofra Weinberger Ph.D.</u> <u>Columbia Innovation Enterprise</u> <u>Columbia University</u> <u>P. H. 15-Center</u> <u>630 W. 168th Street</u> <u>New York N.Y. 10032</u>	
<b>6. Signature (Addressee or Agent)</b> <u>[Signature]</u> PS Form 3800, December 1994		<b>4a. Article Number</b> <u>Z-532 255 147</u>	
<b>5. Received By: (Print Name)</b> <u>[Signature]</u>		<b>4b. Service Type</b> <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified <input type="checkbox"/> Express Mail <input type="checkbox"/> Insured <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> COD	
<b>7. Date of Delivery</b> <u>8-30-00</u>		<b>8. Addressee's Address (Only if requested and fee is paid)</b>	

102565-99-B-0223 Domestic Return Receipt

Thank you for using Return Receipt Service.

UNITED STATES POSTAL SERVICE

First-Class Mail  
Postage & Fees Paid  
[Stamp]  
Permit No. G-10

NEW YORK NY 100  
PM  
2000

• Print your name, address, and ZIP Code in this box •

Ronald I. Eisenstein  
Nixon Peabody LLP  
101 Federal Street  
Boston, MA 02110